

REMARKS/ARGUMENTS

Applicants thank the Examiner for the thorough examination of the claims as evidenced in the Office Action dated January 13, 2005. Applicants respectfully request reconsideration of the rejections to the claims contained therein.

Claims 4, 6, 8, 13, 14, 16 and 18 have been amended by this response. Claim 20 has been canceled. Claims 1-19 are pending in this application.

The Examiner rejected claims 1-20 under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent Application No. 2004/0068372 to Ybarra, et al. Applicants have by this amendment canceled claim 20, thereby rendering moot the Examiner's rejection thereto. With respect to the remaining claims, applicants respectfully traverse this rejection.

Ybarra discloses a threat avoidance system that uses various inputs to determine a threat to an aircraft. The system permits the adjustment of the inputs based upon different flight scenarios (see paragraphs 0038-0049, for example). However, Ybarra does not disclose alerting a pilot of the aircraft if the probability that the aircraft will not maintain the distance from the identified hazards *is greater than a predetermined level*, as recited in applicants' claim 1. Although Ybarra discusses assessing collision risk and providing alerts to the flight crew corresponding to the risks (see paragraph 0033), there is no discussion of a probability threshold that determines whether an aircraft pilot is alerted to a probability of breaching a separation distance. Claim 1 is therefore allowable.

Claims 2-10 directly or indirectly depend from allowable claim 1 and are therefore allowable for at least the same reasons claim 1 is allowable. With respect to amended claim 4, Ybarra does not disclose accessing a database of aircraft performance characteristics that include aircraft ceiling and aircraft range. Claim 4 is therefore allowable for at least this additional reason.

With respect to claim 5, Ybarra does not disclose analyzing inputs from a plurality of aircraft sensors to ascertain a current configuration of the aircraft. Paragraph 0009 of Ybarra, cited against claim 5 by the Examiner, makes no mention of inputs from sensors to ascertain a current configuration of the aircraft. Claim 5 is therefore allowable.

With respect to amended claim 6, Ybarra does not disclose using sensors that measure aircraft flap position, aircraft slat position, landing gear position, throttle position, or an engine-out status for an engine of the aircraft as recited in claim 6. Ybarra further does not disclose using information from said sensors to determine the ability of an aircraft to maneuver to avoid an identified hazard and to remain further from the identified hazard than a separation distance, as recited in claims 1 and 5, from which claim 6 depends. Paragraph 0024, cited by the Examiner against the recitations of claim 6, does not disclose any of the above limitations. Indeed, paragraph 0024 merely discusses flight models stored in memory – not information from onboard aircraft sensors. Claim 6 is therefore allowable.

With respect to amended claim 8, Ybarra does not disclose determining an engine pressure ratio, engine temperature, or an engine RPM. Claim 8 is therefore allowable.

Paragraph 0025, cited by the Examiner against the limitations of claim 10, merely states that the threat processor 106 provides advice via signals to displays 152 and audio annunciators 154. Such a statement does not anticipate or suggest highlighting a graphical representation of a potential hazard, or at least part of a graphical representation of the intended path of the aircraft, as recited in applicants' claim 10. Claim 10 is therefore allowable.

Independent claim 11 contains subject matter similar to allowable claim 1 and is allowable for the same reasons claim 1 is allowable. Specifically, Ybarra does not disclose advising a pilot of the aircraft if the possibility that the aircraft will not maintain the distance from the identified hazards *is above a predetermined threshold*, as recited in applicants' claim 11. Although Ybarra discusses assessing collision risk and providing alerts to the flight crew corresponding to the risks (see paragraph 0033), there is no discussion of a possibility threshold that determines whether an aircraft pilot is advised of a possibility of breaching a separation distance. Claim 11 is therefore allowable. Claims 12-17 depend directly or indirectly from allowable claim 11 and are therefore allowable for at least the same reasons claim 1 is allowable.

Claim 13 has been amended to include recitations similar to allowable claim 4 and is therefore allowable for at least the same reasons claim 4 is allowable. Specifically, Ybarra does not disclose accessing a database of aircraft performance

characteristics that include aircraft ceiling and aircraft range. Claim 13 is therefore allowable for at least this additional reason.

Claim 14 contains recitations similar to those found in allowable claims 5 and 6 and is therefore allowable for the same reasons claims 5 and 6 are allowable. Specifically, Ybarra does not disclose using sensors that measure aircraft flap position, aircraft slat position, landing gear position, throttle position, or an engine-out status for an engine of the aircraft as recited in claim 14. Ybarra further does not disclose using information from these sensors to determine the ability of an aircraft to maneuver to avoid an identified hazard, as recited in claim 11, from which claim 14 depends. Paragraph 0024, cited by the Examiner against the recitations of claim 14, does not disclose any of the above limitations. Indeed, paragraph 0024 merely discusses flight models stored in memory – not information from onboard aircraft sensors. Claim 14 is therefore allowable.

Claim 16 recites that determining the current operating state of the aircraft includes determining at least one of engine temperature and an RPM of an engine of the aircraft. Because Ybarra does not disclose this limitation, claim 16 is therefore allowable.


With respect to claim 17, applicants note that Ybarra discloses a threat avoidance system that protects against terrain, traffic, and weather hazards. Ybarra does not disclose or suggest accessing information relative to areas of *restricted airspace proximal the aircraft*, as recited in applicants' claim 17. Claim 17 is therefore allowable.

Amended claim 18 recites subject matter similar to allowable claim 10. Claim 18 now recites a visual notification apparatus configured to highlight at least one of a graphical representation of a potential hazard and at least part of a graphical representation of the flight path of the aircraft, to thereby advise of the possibility of a violation of any of the required separation distances. As previously pointed out, Paragraph 0025, cited by the Examiner against the recited limitations of amended claim 18, merely states that the threat processor 106 provides advice via signals to displays 152 and audio annunciators 154. Such a statement does not anticipate or suggest highlighting a graphical representation of a potential hazard, or at least part of a graphical representation of the intended path of the aircraft, as recited in applicants'

claim 18. Claim 18 is therefore allowable. Claim 19 depends from allowable claim 18 and is therefore allowable for at least the same reasons claim 18 is allowable.

Accordingly, with entry of the amendments and consideration of the arguments and remarks contained herein, all pending claims are now allowable, and a notice of Allowance is earnestly solicited. The Examiner is invited to contact the undersigned attorney if further issues remain in the prosecution of this application.

Respectfully Submitted,


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